

Table 4-3. Gross alpha, gross beta, tritium, and radium analysis results for NTS potable water supply wells

Monitoring Location and Date Sampled	Gross $\alpha \pm$ Uncertainty (MDC) ^(a) (pCi/L) ^(b)	Gross $\beta \pm$ Uncertainty (MDC) (pCi/L) ^(c)	$^3\text{H} \pm$ Uncertainty (MDC) (pCi/L) ^(d)	$^{226}\text{Ra} \pm$ Uncertainty (MDC) (pCi/L) ^(e)	$^{228}\text{Ra} \pm$ Uncertainty (MDC) (pCi/L) ^(e)
Army #1 WW					
1/21/2004	3.8 \pm 0.90 (0.80)	5.2 \pm 1.2 (1.4)	-1.2 \pm 13 (21)	0.20 \pm 0.32 (0.53)	0.35 \pm 0.36 (0.69)
4/21/2004	1.6 \pm 1.20 (1.9)	-1.6 \pm 1.5 (2.6)	-4.5 \pm 14 (24)	0.56 \pm 0.32 (0.39)	0.46 \pm 0.63 (1.2)
4/21/2004 FD ^(f)	NA ^(g)	NA	0.60 \pm 14 (24)	NA	NA
7/21/2004	2.6 \pm 0.78 (0.88)	5.8 \pm 1.4 (1.7)	8.3 \pm 13 (21)	NA	NA
10/13/2004	3.2 \pm 0.91 (0.93)	5.9 \pm 1.4 (1.6)	5.9 \pm 10 (17)	NA	NA
J-12 WW					
1/21/2004	0.71 \pm 0.39 (0.56)	4.1 \pm 0.96 (1.1)	1.5 \pm 13 (22)	-0.15 \pm 0.18 (0.40)	0.046 \pm 0.33 (0.71)
4/21/2004	1.3 \pm 0.62 (0.82)	2.7 \pm 1.2 (2.0)	2.7 \pm 14 (24)	0.27 \pm 0.27 (0.43)	1.2 \pm 0.57 (1.0)
7/21/2004	0.28 \pm 0.53 (1.1)	4.5 \pm 1.4 (2.1)	6.9 \pm 13 (21)	NA	NA
10/13/2004	0.45 \pm 0.49 (0.89)	3.8 \pm 1.1 (1.5)	2.4 \pm 10 (17)	NA	NA
J-13 WW					
10/13/2004	1.2 \pm 0.55 (0.83)	3.0 \pm 0.96 (1.5)	3.6 \pm 10 (17)	NA	NA
UE-16D WW					
1/20/2004	5.6 \pm 1.2 (0.83)	7.1 \pm 1.4 (1.3)	R ^(h)	1.3 \pm 0.53 (0.39)	0.26 \pm 0.34 (0.68)
4/20/2004	5.7 \pm 1.3 (1.1)	7.5 \pm 1.8 (2.3)	-0.97 \pm 14 (23)	2.1 \pm 0.65 (0.61)	0.63 \pm 0.37 (0.65)
7/20/2004	4.1 \pm 0.94 (0.77)	6.5 \pm 1.4 (1.3)	3.1 \pm 12 (21)	NA	NA
10/12/2004	5.2 \pm 1.3 (1.2)	7.8 \pm 1.6 (1.5)	23 \pm 11 (18)	NA	NA
10/12/2004 FD	NA	NA	28 \pm 12 (18)	NA	NA
WW #4					
1/20/2004	4.6 \pm 0.95 (0.61)	5.5 \pm 1.2 (1.1)	18 \pm 14 (23)	-0.11 \pm 0.27 (0.54)	0.31 \pm 0.34 (0.66)
4/20/2004	7.5 \pm 2.0 (1.5)	4.4 \pm 1.5 (2.3)	-3.3 \pm 13 (23)	0.54 \pm 0.33 (0.42)	0.56 \pm 0.42 (0.76)
7/20/2004	4.8 \pm 1.5 (1.6)	5.5 \pm 1.6 (2.4)	9.2 \pm 13 (21)	NA	NA
10/12/2004	4.0 \pm 1.0 (0.88)	4.9 \pm 1.2 (1.5)	9.9 \pm 11 (18)	NA	NA
WW #4A					
1/20/2004	4.7 \pm 1.0 (0.61)	5.2 \pm 1.1 (1.1)	7.1 \pm 13 (22)	0.25 \pm 0.25 (0.36)	0.54 \pm 0.38 (0.69)
4/20/2004	6.7 \pm 1.3 (1.2)	6.3 \pm 1.4 (2.1)	-3.3 \pm 14 (24)	0.27 \pm 0.32 (0.53)	0.90 \pm 0.46 (0.81)
7/20/2004	5.1 \pm 1.5 (1.5)	5.3 \pm 1.7 (2.6)	9.0 \pm 13 (21)	NA	NA
10/12/2004	5.7 \pm 1.3 (0.82)	6.0 \pm 1.3 (1.5)	9.4 \pm 11 (18)	NA	NA
WW 5B					
2/2/2004	2.5 \pm 0.73 (0.82)	9.2 \pm 1.7 (1.1)	2.7 \pm 13 (22)	0.042 \pm 0.18 (0.34)	0.31 \pm 0.34 (0.67)
7/20/2004	1.7 \pm 0.71 (0.94)	11 \pm 2.2 (1.7)	27 \pm 13 (21)	NA	NA
10/12/2004	4.2 \pm 1.0 (0.94)	11 \pm 2.0 (1.2)	6.0 \pm 10 (17)	NA	NA
WW 5C					
2/2/2004	4.3 \pm 1.2 (1.3)	4.9 \pm 1.3 (1.7)	-5.6 \pm 13 (23)	0.19 \pm 0.24 (0.37)	-0.054 \pm 0.34 (0.72)
7/20/2004	4.4 \pm 1.1 (0.89)	5.1 \pm 1.4 (1.7)	19 \pm 13 (21)	NA	NA
10/12/2004	6.5 \pm 1.3 (0.91)	6.0 \pm 1.3 (1.2)	6.7 \pm 11 (18)	NA	NA
WW 8					
1/20/2004	0.14 \pm 0.55 (1.2)	3.1 \pm 1.2 (2.1)	15 \pm 14 (23)	0.024 \pm 0.16 (0.32)	0.20 \pm 0.36 (0.74)
4/20/2004	0.13 \pm 0.62 (1.1)	1.8 \pm 1.3 (2.1)	2.1 \pm 14 (23)	0.10 \pm 0.22 (0.41)	1.4 \pm 0.62 (1.1)
7/20/2004	0.44 \pm 0.57 (1.1)	3.0 \pm 1.2 (2.1)	-12 \pm 12 (21)	NA	NA
7/20/2004 FD	NA	NA	-11 \pm 12 (22)	NA	NA
10/12/2004	0.36 \pm 0.44 (0.82)	2.5 \pm 0.91 (1.4)	27 \pm 12 (18)	NA	NA
WW C-1					
1/20/2004	11 \pm 2.2 (1.5)	14 \pm 2.8 (2.5)	R	0.66 \pm 0.43 (0.60)	0.62 \pm 0.38 (0.66)
4/20/2004	11 \pm 3.5 (1.4)	16 \pm 2.6 (2.6)	1.7 \pm 14 (23)	1.61 \pm 0.52 (0.50)	0.92 \pm 0.41 (0.66)
7/20/2004	7.0 \pm 1.8 (1.8)	13 \pm 2.7 (2.8)	9.0 \pm 13 (21)	NA	NA
10/12/2004	10 \pm 2.0 (1.2)	15 \pm 2.7 (2.1)	17 \pm 11 (18)	NA	NA

Green shaded results are considered detected (result is greater than the sample specific MDC)

(a) ± 2 standard deviations(b) The EPA established MCL in drinking water for gross alpha (α) is 15 pCi/L(c) The EPA "Level of Concern" in drinking water for gross beta (β) is 50 pCi/L(d) The EPA established MCL in drinking water for tritium (^3H) is 20,000 pCi/L(e) The EPA established MCL in drinking water for ^{226}Ra and ^{228}Ra combined is 5 pCi/L

(f) FD = field duplicate sample

(g) NA = specific analysis was not run on the sample

(h) R = analysis was rejected due to suspected contamination

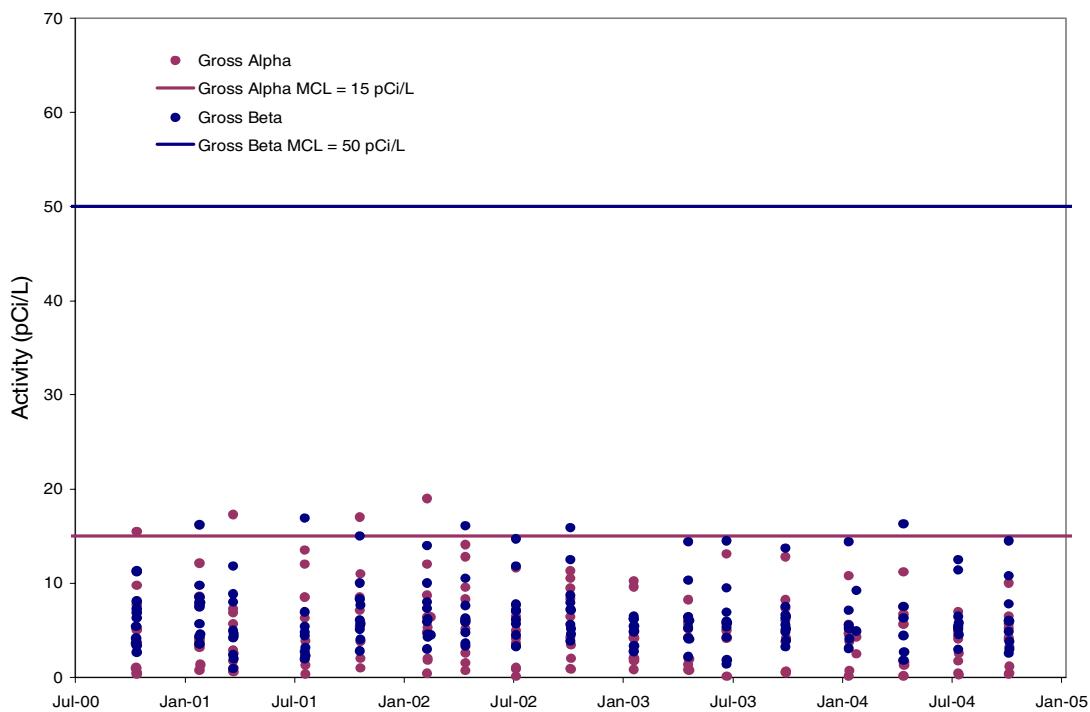


Figure 4-8. Gross alpha and gross beta levels in NTS potable water supply wells from 2000 to 2004

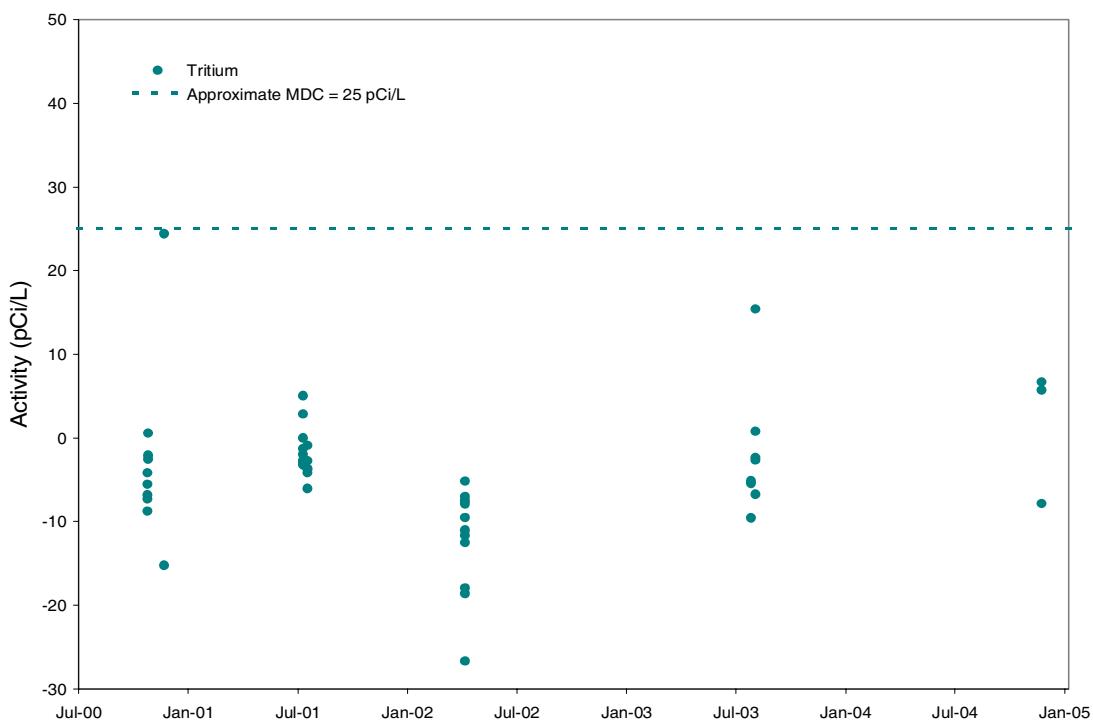


Figure 4-9. Tritium concentrations in NTS potable water supply wells from 2000 to 2004